

What is claimed is:

1. A method of producing TiC- transition metal based complex powder comprising the steps of:
 - preparing a raw material mixture of a Ti-containing material and a transition metal-containing metal salt, followed by spray-drying to obtain precursor powder;
 - calcining the precursor powder to form ultra fine Ti-transition metal complex oxide powder;
 - mixing the ultra fine Ti-transition metal complex oxide powder with nano-sized carbon particles, followed by drying to obtain complex oxide powder; and
 - subjecting the dried complex oxide powder to reduction/carburization in a non-oxidizing atmosphere.
2. The method according to claim 1, wherein the raw material mixture is prepared by dissolving or dispersing a Ti-containing water-soluble salt, $\text{TiO}(\text{OH})_2$ slurry or ultra fine titanium oxide powder, and a transition metal-containing water-soluble metal salt in water.
3. The method according to claim 2, wherein the content of the transition metal in the complex powder is in the range of 1 to 30 wt%.
4. The method according to claim 3, wherein the calcinations is performed at a temperature between 350 to 1000°C.

5. The method according to claim 4, wherein the reduction and carburization is performed by reduction at a temperature between 600°C to 1100°C and then reduction and carburization at a temperature between 1200°C to 1350°C.
6. The method according to claim 1, wherein the raw material mixture is prepared by dissolving or dispersing a Ti-containing water-soluble salt, $\text{TiO}(\text{OH})_2$ slurry or ultra fine titanium oxide powder, and a transition metal-containing water-soluble metal salt in water.
7. The method according to claim 1, wherein the content of the transition metal in the complex powder is in the range of 1 to 30 wt%.
8. The method according to claim 1, wherein the calcinations is performed at a temperature between 350 to 1000°C.
9. The method according to claim 1, wherein the reduction and carburization is performed by reduction at a temperature between 600°C to 1100°C and then reduction and carburization at a temperature between 1200°C to 1350°C.